

TECHNICAL MEMORANDUM

To: Laurel Prevetti and Salifu Yakubu, City of San Jose
From: Jim Musbach, Darin Smith, and Teifion Rice-Evans
Subject: Assessment of CVSP Composite Core Plan and Alternatives; EPS #13159
Date: August 13, 2004

Economic & Planning Systems, Inc. (EPS) has been retained to provide economic consulting services to assist in the City of San Jose's formulation of the Coyote Valley Specific Plan (CVSP). This memorandum provides EPS's preliminary analysis of the Composite Core Plan, as prepared by the Dahlin Group and Ken Kay Associates. On each of several dimensions — including marketability, financial feasibility, phasing, risk, social equity, and City-wide and regional impacts — EPS has provided commentary regarding the implications of the systems generally, as well as the variations in those systems represented by the current Composite Core Plan ("Core Plan") and the defined alternatives to the basic "armature" of that plan.

The key findings of this assessment are summarized on **Table 1**, and are as follows:

- **Transit System**— The "spoke," "loop," and "spine" transit alignment alternatives would present roughly equivalent benefits to the Coyote Valley community, property owners, and developers.
- **Parkway System**—The "Valley Floor" and "Grand Boulevard" options have roughly equivalent opportunity to improve adjacent property values and limit the risks that would be associated with the "Over IBM Hill" alternative.
- **Fisher Creek** — The relocation of Fisher Creek would offer optimal economic benefits, primarily by preserving the maximum amount of land for revenue-generating development.
- **Focal Landscape** — A system incorporating a central lake or series of lakes would be of roughly equivalent economic benefit, while a central green would provide less benefit. The central lake would add more to property values, but the series of lakes could be developed incrementally to defer some costs.



COMPOSITE CORE PLAN DESCRIPTION

REQUIRED PARAMETERS

As required by the “Vision and Expected Outcomes” defined by the San Jose City Council, the Core Plan provides the following features in Coyote Valley:

- “(An) urban, pedestrian- and transit-oriented community with a mixture of housing densities, supportive businesses and services and campus industrial uses.”
- Workspace for a minimum of 50,000 jobs, excluding retail, public, and quasi-public jobs
- Housing for a minimum of 25,000 households
- Provisions for open space amenities and public facilities (schools, libraries, etc.) within the urbanized area
- An urban development boundary, with land south of Palm Avenue retained as a “Greenbelt”

Beyond these physical planning requirements, the Council also established goals for the phasing and financing of the development in Coyote Valley, including the phase-by-phase maintenance of a jobs/housing balance in Coyote Valley and the achievement of “triggers” related to the City’s fiscal condition. In addition, the Council stipulated that 20 percent of the homes at Coyote Valley must be offered at below-market-rate prices.

COMPOSITE CORE PLAN FEATURES

The Core Plan, as currently presented by the Dahlin Group and Ken Kay Associates, meets the physical planning requirements established by the City Council’s “Vision and Expected Outcomes.” The Core Plan includes the following:

- Development oriented around light and heavy rail systems, as well as schools and parks within walking distance of homes
- Workspace for over 50,000 qualifying jobs, ranging from low-rise industrial buildings to high-rise offices
- Over 25,000 housing units ranging from single family detached units to high-rise condominiums
- A mixed-use and pedestrian-friendly “community core” with higher density development including office, residential, and retail space

- The maintenance of an urban development boundary at Palm Avenue

The Core Plan does not make specific recommendations regarding the phasing or financing of development, nor does it specifically locate the below-market-rate housing units.

ECONOMIC ASSESSMENT OF THE CORE PLAN ARMATURE

The Core Plan establishes a basic land use program, as well as an “armature” of features upon which there are potential variations. At this point in the planning process, the land use program is still somewhat preliminary and flexible, and will be subject to significant refinement throughout the coming months. The armature, by contrast, sets the basic organization of the overall Core Plan and its land uses, and is the subject of this assessment.

TRANSIT SYSTEM

General Considerations

The following considerations pertain to all variations of the Coyote Valley transit system. The system defined in the Core Plan, and alternatives to the Core Plan system, are addressed subsequently.

Marketability

In numerous studies, transit service has been shown to enhance property values for both housing and workspace that is within walking distance (roughly ¼ mile) of stations. For instance, a 2001 study of land values near transit in Santa Clara County indicated that property values increase by roughly 23 percent near light rail stations, and by over 100 percent near commuter rail stations.¹

The marketing advantages of any transit system in Coyote Valley will be largely contingent upon its connections beyond Coyote Valley. While it is hoped that many of the future residents of Coyote Valley will also work in Coyote Valley, it is likely that a significant majority of residents will work elsewhere, and many employees of Coyote Valley firms will live elsewhere. To the extent that Coyote Valley’s transit system provides convenient, reliable, and rapid connections to other systems and locations, Coyote Valley properties will realize comparatively higher values than if transit were not provided. If, however, the transit service only provides connections within Coyote Valley, the marketing advantages of transit are likely to be reduced.

¹ “Rail Transit’s Value -Added: Effects of Proximity to Light and Commuter Rail Transit on Commercial Land Values in Santa Clara County, California,” by Robert Cervero and Michael Duncan, UC Berkeley.

Feasibility

The price premiums associated with the transit system will enhance the feasibility of development, not only by adding value to individual building prototypes (and therefore land values), but also by potentially increasing the values to such degree that higher-cost building types (e.g., taller buildings, structured parking, etc.) will be feasible. For example, the cost to develop a seven-story office building with structured parking in Coyote Valley has been estimated at roughly \$285 per square foot of building.² To support a land value of \$1.0 million per acre (at a Floor Area Ratio of 1.0), the rents for that office building would need to be \$33.80 per square foot per year (see **Table 2**). If rents for office space increase by 10 percent, the land value would increase dramatically, to \$2.3 million per acre. If the rents fall by 10 percent, the land value falls below zero, meaning the project is infeasible at any land price. Alternatively, if the land value is held constant at \$1.0 million, a 10 percent increase in achievable rents allows the building development costs to increase by 10 percent as well, which could provide for taller buildings, more structured parking, or other changes in the types of buildings that are financially feasible.

Almost all transit systems are built with significant subsidy from regional, state, and/or federal transportation funding sources. Coyote Valley's transit system should also be funded in this cooperative manner, particularly if the system will be connected to transit outside of Coyote Valley to provide a viable regional transportation alternative.

The ongoing costs to operate the system have not been estimated, but are likely to run in the millions of dollars annually. Few transit systems in the United States recoup even half of their operating costs through fare revenues, and instead rely on governmental subsidies. As with the capital costs required for construction, the Coyote Valley transit system should be financed cooperatively, with significant intergovernmental subsidies.

To the extent that such cooperative financing can be secured, the transit system in Coyote Valley should be financially feasible. To be most competitive for the receipt of such intergovernmental subsidies, the Coyote Valley transit system must provide strong linkages to employment and residential areas well beyond Coyote Valley.

Phasing

Given the desire to have significant ridership when the system begins operation, it is advisable that the transit system not be constructed until workspace and residential development in Coyote Valley is well underway. According to EPS's market analysis, the highest density residential and commercial building typologies will become increasingly marketable over the next decade or two, but these uses — which stand to benefit most from and contribute most to transit service — are unlikely to be realized in the first phase of development. This delayed phasing approach will also provide more time for Coyote Valley's transit system to compete for intergovernmental subsidies, which typically is a multi-year process.

² Lee Saylor Associates and EPS, July 2004.

The right-of-way for the transit system should be established in the initial development of the community, so that the system can be installed later without the need to re-acquire property. Also, EPS recommends that the Plan consider a change of transit mode over time, with initial transit service provided by less expensive vehicles (e.g. buses or rubber-tire trolleys) and more expensive vehicles being introduced only when trip demand increases significantly.

Risk

The development of a fixed-guideway transit system may depend upon the availability of funding sources external to the Coyote Valley project. As such, the system's development is subject to the budgetary limitations of regional, state, and federal agencies. This dependence places the Coyote Valley transit system at some risk of never being developed. However, given the high profile of this project and its ability to serve as a national and international model for transit-oriented development, it is probable that Coyote Valley will be highly competitive for transit development and operations funding. Also, the risk can be mitigated by starting with a less expensive transit technology (e.g., buses) and introducing more expensive vehicles and/or fixed guideway systems as the project's trip demand increases.

Social Equity

A transit system at Coyote Valley will provide an alternative to automobile transportation, potentially making Coyote Valley a more affordable place to live than other communities with lesser transit systems. Also, transit service to Coyote Valley's employment areas will enable workers of all income levels to access those job sites. While these benefits will accrue to some degree even if Coyote Valley's transit system only operates within Coyote Valley, the social equity benefits of the transit system will be much greater if Coyote Valley is connected to other areas through its transit system.

City-wide and Regional Impacts

Transit systems typically are intended to provide benefits to a large area by reducing freeway congestion, improving air quality, reducing commute times, and providing transportation alternatives for lower-income residents and workers. As discussed above, the Coyote Valley transit system will be costly to construct and operate, and is likely to require City or regional financial subsidies. Many communities have elected to provide those subsidies because of the greater benefits of transit ridership. These benefits will be relatively minor if Coyote Valley's transit system does not provide adequate connections beyond its own community.

Comparison of Alternatives

Core Plan — Spoke System

The Core Plan presents a "spoke" transit system that provides service to the northeastern parts of Coyote Valley (currently envisioned as predominantly employment space), and into the mixed-use community core, including a link to a Caltrain station on the Monterey Highway south of Bailey Avenue. From the

community core, the system would split, with one line running west to the employment areas along Bailey Avenue and another line continuing into the residential neighborhoods to the south. As shown on **Table 1** (attached), this “spoke” system is likely to have the following economic effects:

1. Provide transit service within walking distance of most of the urban land in Coyote Valley, thus adding value to many properties.
2. Offer the potential to be developed incrementally, with longer routes and more expensive vehicles modes being phased in over time.
3. Share little right-of-way with existing roads, thus requiring additional land that could not be developed for revenue-generating uses.

Alternative #1 — Spine System

The “spine” system would be comprised of a single transit line running generally north-to-south through the project west of Monterey Highway. The “spine” system would run from the northwestern parts of Coyote Valley, along Bailey Avenue through the mixed-use community core and into the more residential neighborhoods to the southwest. Compared to the alternative transit alignments, this “spine” alignment would have the following effects:

1. Provide transit service within walking distance of less of the urban land in Coyote Valley, thus adding less value to the developable properties.
2. Offer the potential to be developed incrementally, with longer routes and more expensive vehicles modes being phased in over time.
3. Allow greater flexibility over time, as extensions or spurs could be more easily added in response to emerging land use patterns and trip demand.
4. Share more right-of-way with existing roads, thus requiring less additional land that could not be developed for revenue-generating uses.

Alternative #2 — Loop System

The “loop” system would be comprised of a more-or-less circular transit system that follows a similar alignment to the “spine” system, but then returns from south-to-north via predominantly residential neighborhoods to the west. The “loop” would also provide service to potential employment development situated along Bailey Avenue, west of the community core. This loop alignment would have the following effects:

1. Provide transit service within walking distance of most of the urban land in Coyote Valley, thus adding value to many properties.

2. Offer the potential to be developed incrementally, with longer routes and more expensive vehicles modes being phased in over time.
3. Share little right-of-way with existing roads, thus requiring additional land that could not be developed for revenue-generating uses.

Conclusion

Without an estimate of the cost differences between the “spoke,” “spine,” and “loop” transit systems and alternative land use programs for each system, EPS is unable to specifically compare the financial costs and benefits of each alternative. Based on the criteria evaluated above, however, EPS concludes that the transit alignment alternatives would present roughly equivalent benefits to the Coyote Valley community, property owners, and developers (see **Table 1**).

PARKWAY

General Considerations

The following considerations pertain to all variations of the Coyote Valley parkway system, which is intended to provide the highest-speed automobile circulation through the Valley and provide connections to Highway 101. The specific parkway system defined in the Core Plan, and alternatives to the Core Plan system, are addressed subsequently.

Marketability

Convenient accessibility from high volume roadways is a valuable asset for all types of development, as it enhances the residents', employees', or shoppers' abilities to quickly travel from location to location. While access to a “parkway” is not the same as access to a freeway (freeways tend to carry significantly more traffic volume), the principle applies to parkways as well. Moreover, the parkway system envisioned for Coyote Valley is also expected to be a physically attractive “green” setting that also serves environmental and water quality functions. Traffic is expected to move briskly with few stops and starts, as the parkway system will be largely unsignalized but rely on roundabouts and other alternatives to conventional intersections. All of these factors suggest that the parkway system will enhance the marketability of all types of development, although perhaps not more than would a circulation system of similar traffic capacity and accessibility and visibility to adjacent properties.

Feasibility

Locations near the parkway are likely to command premium property values for office, R&D, and retail development. Apartments may also achieve premium rents near the parkways, as long as the parkway itself is not a significant cause of noise, pollution, visual blight, or other nuisances. Lower density residential development is less likely to achieve premium values near the parkway, but will still benefit generally from the improved accessibility through the community.

The price premiums associated with the parkway will enhance the feasibility of development, not only by adding value to individual building prototypes (and therefore land values), but also by potentially increasing the values to such degree that higher-cost building types (e.g., taller buildings, structured parking, etc.) will be feasible.

To date, EPS has not been provided any specific cost estimates for the Core Plan parkway system and its variations, nor for alternatives such as a more traditional street hierarchy (collectors, arterials, etc.). However, since the parkway will directly serve the Coyote Valley community and have limited value outside of Coyote Valley, EPS anticipates that the opportunities to have the parkway infrastructure funded regionally or even Citywide may be limited. This fact places a heavier burden on the developers and landowners in Coyote Valley.

Phasing

The Core Plan does not recommend a specific phasing plan for the parkway, but verbal representations have been made that the parkway would likely be developed only after the local streets (primarily arranged in an urban grid pattern) have reached high traffic volume levels. This phasing strategy would defer the significant cost of the parkway construction. However, it would also limit the value that the parkway can add to early stages of development. An office building located on a site that will not be served by a parkway for 10 or 20 years would be unlikely to capitalize the additional value that the parkway would eventually generate. A financing strategy that balances the cost of the parkway with its added value may result in a phased development, with portions of the parkway being built simultaneously with its adjacent development. Until the costs and benefits of the parkway can be measured, however, the optimal phasing strategy will remain uncertain.

Risk

The primary economic risk inherent in the development of the parkway system is that it adds significant costs that would otherwise be unnecessary, and does not recoup corresponding property values. EPS defers to the engineers and traffic analysts to evaluate the technical merits and costs of the parkway system compared to alternative circulation systems. To be conservative, EPS also would not add a premium to adjacent property values beyond those that would be generated by other circulation systems that offer the same traffic capacity.

Social Equity

The parkway system will have limited effects on the social equity goals of the Coyote Valley Specific Plan. However, the Plan may seek to distribute mixed-income housing to offer parkway accessibility for some affordable apartment units, but this will result in some sacrifice of the potential added value from the features, as affordable housing is price restricted and may not fully capitalize on the parkway value.

City-wide and Regional Impacts

The parkway system is intended to carry automobile traffic efficiently through the Coyote Valley community. To the extent that this function relieves traffic congestion on other routes, the parkway may have a positive impact on the City and region. However, given the total volume of traffic expected to be generated by the Coyote Valley community, it is highly unlikely that any of the existing roads will actually become less congested than they currently are due to the addition of the parkway.

Comparison of Alternatives

Core Plan — Valley Floor Parkway

The Core Plan establishes a route that avoids the hills north of Bailey Avenue and instead incorporates Bailey Avenue into the parkway system, but does not also provide transit service on Bailey Avenue. As shown on **Table 1**, this parkway system is likely to have the following economic effects:

1. Add value to many properties, particularly along the western end of Bailey Avenue envisioned for commercial/industrial development that can best capitalize on the parkway adjacency.
2. Allow for incremental development, thus providing opportunities to defer some major infrastructure costs to later phases of the project development.
3. Minimize intrusions into open space, habitats, and sloped areas, thus reducing costs and risks.
4. Fail to integrate transit right-of-way into the parkway right-of-way, thus requiring additional land that could then not be developed for revenue-generating uses.

Alternative #1 — Grand Boulevard Parkway

This alternative would also establish a parkway route that avoids the hills north of Bailey Avenue, but uses Bailey Avenue both as part of the parkway system and as a major transit boulevard. Compared to the Valley Floor design, this “Grand Boulevard” system is likely to have the following economic effects:

1. Add value to many properties, particularly along the western end of Bailey Avenue envisioned for commercial/industrial development that can best capitalize on the parkway adjacency.
2. Allow for incremental development, thus providing opportunities to defer some major infrastructure costs to later phases of the project development.
3. Minimize intrusions into open space, habitats, and sloped areas, thus reducing costs and risks.

4. Potentially reduce the total amount of right-of-way required for circulation (parkway and transit combined), thereby allowing for more developable land and land value in the Plan.

Alternative #2 — Parkway Over IBM Hill

This parkway alignment would not incorporate Bailey Avenue into the parkway, leaving it instead as a transit route and medium-volume automobile route. The parkway would then be routed through the IBM campus and current open space in the hills north of Bailey Avenue. This parkway system is likely to have the following economic effects:

1. Limit the added property values associated with the parkway, by reducing the amount of land served by or visible from parkway access points.
2. Fail to integrate transit right-of-way into the parkway right-of-way, thus requiring additional land that could then not be developed for revenue-generating uses.
3. Increase the risks of development by potentially requiring regulatory approvals for development in the open space and potentially adding costs due to the technical challenges of building roadways on steeper grades.

Conclusion

Without an estimate of the cost differences between the parkway systems and alternative land use programs for each system, EPS is unable to specifically compare the financial costs and benefits of each alternative. Based on the criteria evaluated above, however, EPS concludes that the Valley Floor and Grand Boulevard parkway alternatives would present roughly equivalent benefits to the Coyote Valley community, property owners, and developers, while the parkway over IBM Hill would be of significantly less benefit (see **Table 1**).

ENVIRONMENTAL FOOTPRINT

General Considerations

The following considerations pertain to all variations of the Coyote Valley environmental footprint, including a system of streams and lakes that serve both aesthetic and functional (water retention and quality) purposes for the Coyote Valley Specific Plan. The specific environmental footprint system defined in the Core Plan, and alternatives to the Core Plan system, are addressed subsequently.

Marketability

Open space and water features have proven time and again to be a valuable resource for enhancing the marketability of development, whether for residential or commercial use. Property values on or near dedicated open space in the Bay Area have proven to be as

much as 25 percent higher than similar properties without proximate open space.³ Waterfront properties have an even higher differential, whether the water is navigable, swimmable, or merely ornamental.

The marketing advantages of the environmental footprint system in Coyote Valley will be contingent upon the extent of the amenity that the environmental features provide. For example, adjacent property values are likely to increase most from a lake, followed by a stream or canal, and a passive park. Immediate adjacency to an active recreational park may add value to commercial development but can actually detract from the value of residential development, particularly if ballfields or courts are illuminated at night.

Feasibility

The amenity values associated with various environmental footprint systems can not only improve price points for a given type of development, but can also render alternative building prototypes feasible that otherwise would not be. For example, high-rise residential development is extremely expensive to construct, but if a high-rise residential development achieves premium price points because it overlooks a lake, the added value may be sufficient to allow the construction of such units to be profitable.

Despite the value added by these environmental features, they are not constructed without significant cost. Moreover, they are typically expensive to maintain over time. In Coyote Valley, however, there appears to be little choice but to incorporate a significant amount of environmental systems, if only because the water retention requirements are so high.

EPS's understanding is that the environmental footprint in Coyote Valley is primarily required to mitigate the impacts of development on the site so that "downstream" environmental conditions can be maintained but not greatly improved. As such, the opportunities to have environmental features funded regionally or even Citywide may be limited. This fact places a heavier burden on the developers and landowners in Coyote Valley.

Phasing

It is likely that a significant portion of the environmental features must be developed prior to or during the development of other residential and commercial uses in Coyote Valley, to mitigate the impacts of that development. Moreover, the earlier these environmental features are developed, the more of their potential value can be captured by the developable property. However, most (but not all) of the added value of these features should be capitalized into commercial and residential development even if that development precedes the construction of the environmental footprint features, so long as the features are expected to be developed within a few years.

³ "Quantifying Our Quality of Life: An Economic Analysis of the East Bay's Unique Environment," conducted by EPS (2000) for East Bay Regional Park District.

Risk

The development of the environmental footprint system will depend on permits and regulatory allowances that have not yet been secured. The added value from these features will be capitalized into properties only when their development is effectively ensured through these regulatory actions.

Social Equity

The environmental footprint features will promote social equity to the extent that they: 1) are equally accessible to Coyote Valley residents and workers as well as people from beyond the community, and 2) adequately serve their functional purposes of protecting the downstream environment. Both of these goals should be promoted by the Coyote Valley Specific Plan, by ensuring their technological adequacy and maintaining public access rather than privatized control of the features. The Plan may also seek to distribute mixed-income housing around the environmental features, but this will result in some sacrifice of the potential added value from the features, as affordable housing is price restricted and may not fully capitalize on the amenity value.

City-wide and Regional Impacts

The environmental footprint features will create impacts beyond the Coyote Valley area by: 1) protecting or failing to protect the downstream environment, 2) providing amenities that can be enjoyed by people from beyond the Coyote Valley community, and 3) requiring construction or maintenance funding from outside Coyote Valley. The costs for construction and maintenance for these features have not yet been provided to EPS, and the financing plan has not yet been formulated.

Comparison of Alternatives

Core Plan — Central Lake and Fisher Creek Relocation

The Core Plan establishes an environmental footprint system in which much of the water retention function is provided in a major lake created near the urban core of the new Coyote Valley community. This solution would also relocate all of Fisher Creek's water flow toward the western edge of the Valley, which is topographically lower and more "natural" (Fisher Creek was relocated once before, decades ago, for irrigation purposes). As shown on **Table 1**, this Core Plan system is likely to have the following economic effects:

1. Provide an organizing feature (the central lake) that creates an identity for Coyote Valley generally and its urban core in particular, that can be used as an attractive amenity for residents, workers, shoppers, and diners.
2. Increase the value of residential and commercial properties with views of the lake (primarily) or within walking distance (secondarily).

3. Reduce the overall amount of land required for water retention/detention, thus providing more land for revenue-generating development.
4. Increase the risks of development by: a) requiring regulatory approvals for waterway relocation and b) requiring a major up-front expenditure that relies on subsequent captured property values.

Alternative #1 — Central Green and Regulatory Avoidance

The first alternative system would not relocate or otherwise alter Fisher Creek and would not propose a major lake in the Coyote Valley project, but may instead rely on distributed open spaces and a new stream to carry and retain water. Compared to the Core Plan system, this alternative environmental footprint system would have the following effects:

1. Reduce the “place-making” advantage by replacing the lake with a focal park.
2. Reduce the added value of the environmental footprint amenities.
3. Require the most additional land for water retention/detention, thus providing less land for revenue-generating development.
4. Reduce the risk inherent in both regulatory requirements and up-front financing.

Alternative #2 — Series of Lakes and Additional Reach of Fisher Creek

This environmental footprint system would replace the single, focal lake with a series of smaller lakes that jointly serve the same environmental function as the larger lake. In addition, this system would enhance the existing Fisher Creek in its current location, but also add an additional “reach” to accommodate more water flow. This environmental footprint system would have the following economic effects:

1. Reduce the “place-making” advantage by replacing the focal lake with a series of lakes, which would not create an obvious central feature for Coyote Valley.
2. Reduce the added value of the environmental footprint amenities.
3. Require a moderate amount of additional land for water retention/detention, thus providing less land for revenue-generating development.
4. Allow for incremental development of the lakes rather than an up-front expenditure.

Conclusion

Without an estimate of the cost differences between the environmental footprint systems and alternative land use programs for each system, EPS is unable to specifically compare the financial costs and benefits of each alternative. Based on the criteria evaluated above, however, EPS concludes that the system incorporating a central lake and a relocated Fisher Creek would maximize the benefits to the Coyote Valley community, property owners, and developers (see **Table 1**).

Table 1

Economic Comparison and Ranking of Urban Structure/Design Armature Elements Coyote Valley Specific Plan

RANKING

Neutral = 0

Fair = 1

Better = 2

Best = 3

URBAN STRUCTURE ELEMENTS	EVALUATION CRITERIA/FILTERS										SCORE
	Added Value		Inertia		Developability		Risk		Equity Spread: Costs & Benefits		
	Score	Comment	Score	Comment	Score	Comment	Score	Comment	Score	Comment	
Transit Alignment											
General		Transit service can add significant value to both commercial and residential properties, but only to the extent it provides meaningful access to trip origins and destinations		Type of service should correspond with level of ridership and cost of facilities; plan should provide opportunity to start with less expensive system, graduate to more expensive as ridership improves		Ability to re-align routes to respond to development should be emphasized; easier to accomplish this with non-fixed system (e.g., buses rather than light rail)		Risk is minimized by allowing flexible, lower-cost system on primary vehicle routes while Coyote Valley is developing, increasing service as land use pattern becomes fixed and demand grows		Alignments that share R.O.W. with other modes can minimize undevelopable land; alignments that touch multiple large properties distribute costs/benefits more equitably	
Spoke	2	Provides service to more of Coyote Valley, resulting in more potential "value capture"	2	R.O.W. establishment can begin anytime as part of infrastructure plan; Facilities constructed and operations begin when adequate origins/destinations in place	2	Can establish R.O.W., construct facilities, and expand operations incrementally as surrounding areas develop	2	Minimally on major vehicles routes (Santa Teresa); moderately flexible for later changes and extensions	2	Minimally on shared R.O.W. (Santa Teresa); alignment touches many major properties	10
Loop	2	Provides service to more of Coyote Valley, resulting in more potential "value capture"	2	R.O.W. establishment can begin anytime as part of infrastructure plan; Facilities constructed and operations begin when adequate origins/destinations in place	2	Can establish R.O.W., construct facilities, and expand operations incrementally as surrounding areas develop	2	Partially on major vehicles routes (Bailey, Santa Teresa); least flexible for later changes or extensions	2	Partially on shared R.O.W. (Bailey, Santa Teresa); alignment touches many major properties	10
Spine	1	Less transit coverage = less property value capture	2	R.O.W. establishment can begin anytime as part of infrastructure plan; Facilities constructed and operations begin when adequate origins/destinations in place	2	Can establish R.O.W., construct facilities, and expand operations incrementally as surrounding areas develop	3	Mostly on major vehicles routes (Bailey, Santa Teresa); most flexible; least expensive; can extend or add spurs later	2	Mostly on shared R.O.W. (Bailey, Santa Teresa); alignment touches fewer major properties	10

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Economic Comparison and Ranking of Urban Structure/Design Armature Elements Coyote Valley Specific Plan

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URBAN STRUCTURE ELEMENTS	EVALUATION CRITERIA/FILTERS										SCORE
	Added Value		Inertia		Developability		Risk		Equity Spread: Costs & Benefits		
	Score	Comment	Score	Comment	Score	Comment	Score	Comment	Score	Comment	
Parkway System											
General		Convenient vehicular access from major traffic routes adds value to commercial properties and rental housing; attractive design can enhance overall project value if capacity is adequate		Parkway can be developed as early traffic route or R.O.W. can be established early for later development of parkway as traffic volumes increase		Parkway can be developed incrementally as demand grows from surrounding uses, or can be developed up-front as environmental and traffic feature		Parkway alignments that minimize intrusion into habitats, sloped areas, or existing properties have lower risk		Alignments that use existing R.O.W. and/or share R.O.W. with other modes can minimize undevelopable land; alignments that touch multiple large properties distribute costs/benefits more equitably	
Valley Floor	2	Provides parkway access/adds value to major employment centers (Bailey Ave, community core, etc.)	2	R.O.W. establishment and facility construction can begin anytime as part of infrastructure plan	2	Alignment shared with Bailey Avenue may facilitate development of that portion of the parkway	2	Minimal intrusion on slopes, habitats, and existing properties	2	Partially on existing R.O.W. (Bailey Ave); alignment touches many major properties	10
With Grand Boulevard	2	Provides parkway access/adds value to major employment centers (Bailey Ave, community core, etc.)	2	R.O.W. establishment and facility construction can begin anytime as part of infrastructure plan	2	Alignment shared with Bailey Avenue may facilitate development of that portion of the parkway	2	Minimal intrusion on slopes, habitats, and existing properties	3	Partially on existing R.O.W. (Bailey Ave) and shared with transit; alignment touches many major properties	11
Over IBM Hill	1	Most peripheral alignment, provides access and adds value to fewest properties	1	Construction may be delayed over the hill due to environmental regulations	1	Alignment requires bifurcation of IBM property, which may delay development	1	Requires construction over hill (sloped open space) and through IBM property	1	Minimally on existing R.O.W.; alignment places heavier burden on IBM property	5

Table 1

**Economic Comparison and Ranking of Urban Structure/Design Armature Elements
Coyote Valley Specific Plan**

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	Added Value		Inertia		Developability		Risk		Equity Spread: Costs & Benefits		
	Score	Comment	Score	Comment	Score	Comment	Score	Comment	Score	Comment	
Fisher Creek Alignment											
General		Property along water features can achieve premium values commensurate with the feature's attractiveness and level of maintenance; less land for creek alignment means more land for development		EPS defers to hydrologists and other technical experts		EPS defers to hydrologists and other technical experts		EPS defers to hydrologists and other technical experts		Creek alignment that require least amount of land for water flow are most equitable -- property owners on creek alignment gain more value to offset costs	
Regulatory Avoidance	1	Least physically attractive alternative (least "natural"); adds least value to surrounding properties	0	N/A	0	N/A	0	N/A	1	Current Fisher Creek cannot accommodate adequate flow, so more land is required for additional flow; planners estimate that this scenario requires most land	2
Additional Reach	2	More physically attractive alternative; adds more value to surrounding properties	0	N/A	0	N/A	0	N/A	1	Current Fisher Creek cannot accommodate adequate flow, so more land is required for additional flow; planners estimate that this scenario requires most land (same as "avoidance")	3
Relocation	2	More physically attractive alternative; adds more value to surrounding properties	0	N/A	0	N/A	0	N/A	3	Planners estimate this alignment requires least amount of land for water flow and setbacks, so developable land is maximized	5

Table 1

Economic Comparison and Ranking of Urban Structure/Design Armature Elements Coyote Valley Specific Plan

RANKING

Neutral = 0

Fair = 1

Better = 2

Best = 3

URBAN STRUCTURE ELEMENTS	EVALUATION CRITERIA/FILTERS										SCORE
	Added Value		Inertia		Developability		Risk		Equity Spread: Costs & Benefits		
	Score	Comment	Score	Comment	Score	Comment	Score	Comment	Score	Comment	
Focal Landscape											
General		Major landscape elements can be organizing elements and amenities that add value to properties and can enable feasibility of higher-density development; water features serve dual purpose as amenity and necessary water quality system		Water retention/detention will be needed as development occurs; amenities are desired close to time of surrounding development for maximum impact on property values		Landscape features/system that can be developed incrementally can allow flexibility in design and financing as surrounding development occurs		Risk is closely related to developability, so double-counting may skew results		Focal landscape that reduces a property owner's developable land should offset that loss with property value enhancement; ideally multiple property owners share both the cost/property loss and added value from the features	
Central Green	1	Property value premiums associated with green open space are lower than those associated with large water features; requires other land in project to be used for water detention/retention	2	Green could be built anytime, but would require that water detention/retention be provided elsewhere early in project	2	Green itself could be built anytime, and water retention/detention required elsewhere could be developed incrementally	0	See "Developability"	1	Central Green would consume land with little offsetting property value; water retention/detention features still likely to be concentrated on relatively few parcels but require much more land if all shallow rather than deep like lake	6
Series of Lakes	2	Attenuates "premium" properties but loses some value as central organizing element; unlikely to enhance property values as much as central lake concept would	2	Lakes could be built as amenity and water quality feature early in overall development	2	Lakes could be developed incrementally as additional retention/detention capacity is required	0	See "Developability"	2	Series of lakes would consume land with moderate offsetting property value; water retention/detention features still likely to be concentrated on relatively few parcels	8
Central Lake	3	Serves as organizing element for community core; adds maximum value to most enhance feasibility for higher-density products	2	Lake could be built as amenity and water quality feature early in overall development	1	Large lake must be developed at one time, rather than in increments	0	See "Developability"	3	Central Lake would consume land with maximum offsetting property value; water retention/detention features still likely to be concentrated on relatively few parcels	9

Table 2
Illustrative Rent/Land Value/Development Cost Sensitivity Analysis
Seven-Story Office with Structured Parking
Coyote Valley Specific Plan

Item	Assumption	Cost /Unit
Development Costs		
Hard Costs	<i>Building</i>	\$150.00 /bldg SF
	<i>Parking</i>	\$37.00 /bldg SF
	<i>Site Improvements</i>	\$3.00 /bldg SF
	Total	\$190.00 /bldg SF
<u>Soft Costs (1)</u>	<u>(50% of Hard Costs)</u>	<u>\$95.00 /bldg SF</u>
Subtotal, Building Construction		\$285.00 /bldg SF
<u>Land Costs</u>	<u>(\$1,000,000/acre at 1.0 FAR)</u>	<u>\$22.96 /bldg SF</u>
Total Development Cost		\$307.96 /bldg SF
Development Value		
Annual Rent	(Triple-net rent)	\$33.80 /bldg SF
less Vacancy Losses	(8% of gross rent)	\$2.70 /bldg SF
less Operating Expenses	(5% of gross rent)	\$1.69 /bldg SF
<u>less Capital Reserves</u>	<u>(5% of gross rent)</u>	<u>\$1.69 /bldg SF</u>
Net Operating Income		\$27.72 /bldg SF
<u>Capitalization Rate</u>		9%
Total Capitalized Value		\$307.96 /bldg SF
Land Value Sensitivity at 1.0 FAR		
Annual Rent (NNN)	\$30.73	-\$218,478 /acre
	\$33.80	\$1,000,000 /acre
	\$37.18	\$2,341,398 /acre
Supportable Development Cost Sensitivity (constant land value at \$1,000,000/acre)		
Annual Rent (NNN)	\$30.73	\$257.03 /bldg SF
	\$33.80	\$285.00 /bldg SF
	\$37.18	\$315.79 /bldg SF

(1) Soft Costs include general conditions, consulting and design fees, project and construction management, bonds, contractor's fees, contingencies, etc.

Sources: Lee Saylor Associates; Economic & Planning Systems, Inc.